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March 1, 1999

Mr. Chuck Schwer
VT Department of Environmental Conservation
Waste Management Division
103 South Main St./ West Bldg.
Waterbury, VT 05671-0404

RE: Subsurface Investigation, Former Stagecoach Transportation, Randolph, VT, (VTDEC #98-2380)

Dear Chuck:

Enclosed please find the *Report on the Site Investigation of Suspected Subsurface Petroleum Contamination* for the Former Stagecoach Transportation site in Randolph, Vermont. Mr. Frank Trombetta, Jr., requested that we forward a copy to you. Please call if you have any questions or comments.

Sincerely,

Timothy J. Kelly, PG
Geologist

Encl.

cc: Frank Trombetta, Jr. Midway Oil Company (w/o encl.)
GI #3985300

**REPORT ON THE
SITE INVESTIGATION
OF SUBSURFACE
PETROLEUM CONTAMINATION**

AT

**FORMER STAGECOACH TRANSPORTATION
Randolph, Vermont**

VTDEC Site #98-2380
Griffin Proj. #3985300

February 19, 1999

Prepared For:

Mr Frank Trombetta
Midway Oil Company
PO Box 8
Rutland, VT 05701

Prepared by



P.O. Box 943/ 19 Commerce St.
Williston, Vermont 05495
(802) 865-4288

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VT

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I. INTRODUCTION

This report provides a summary of the tasks completed for the site investigation of suspected subsurface petroleum contamination at the former Stagecoach Transportation facility at 14 South Main Street in Randolph, Vermont (see Site Location Map in Appendix A). Results of the following investigative tasks performed by Griffin International, Inc., (Griffin) are presented:

- ◇ monitoring well installation;
- ◇ site survey;
- ◇ determination of groundwater flow direction and gradient;
- ◇ groundwater sampling and analyses;
- ◇ sensitive receptor survey.

This work is being performed based on requests from Mr. Chuck Schwer of the Vermont Department of Environmental Conservation (VTDEC) in a letter to Mr. David Palmer of Stagecoach Transportation dated June 3, 1998. Work was performed in accordance with the June 10, 1998, *Work Plan for Investigation of Subsurface Petroleum Contamination*, prepared by Griffin with the exception noted below in Section III. Since the work plan and cost estimate were submitted, Midway Oil Company of Rutland, Vermont has acquired this former Stagecoach Transportation facility property. This work has been conducted as a result of the detection of contamination discovered during the course of a Phase II Environmental Site Assessment (ESA) performed by Griffin on April 14, 1998.

II. SITE BACKGROUND

The former Stagecoach Transportation facility is located at 14 South Main Street in Randolph, Vermont (see Site Location Map in Appendix A). The entire site west of the shed is paved with asphalt and concrete. Topography at the site generally flat with a steep bank at the southwest corner of the property. The property is bounded to the south by a residence, on the east by the steep bank, on top of which are several residences, on the north by a farm/feed store and business offices and on the west by Main Street, across which are several businesses. The Third Branch of the White River flows to the southeast approximately 1,600 feet northeast of the property.

No supply well exists on the former Stagecoach Transportation property. The area is serviced by municipal water and sanitary sewer systems. The site is underlain by pebbly sands according to the *Surficial Geologic Map of Vermont* (Ref. 1). The bedrock underlying the subject property is mapped as the Barton River member of the Waits River Formation, which consists of interbedded siliceous crystalline limestone and sericite-quartz-chlorite phyllite, according to the *Centennial Geologic Map of Vermont* (Ref. 2). No bedrock exposures were observed on the former Stagecoach Transportation property or adjacent properties.

There are two gasoline USTs and a fuel oil UST on the subject property that are reportedly out of service at this time. The gasoline USTs are reportedly double walled steel, cathodically protected, and in compliance with current standards. The piping from the USTs is reportedly iron piping which would not be in compliance with current standards. The construction of the fuel oil UST is presumed to be single walled. There is one floor drain present in the vehicle bay of the building. On the opposite side of the building from the current floor drain there was reportedly a vehicle lift and potentially a floor drain which was not obvious due to building renovation.

On April 14, 1998, four soil borings were installed on-site to approximately 30 feet below grade to determine the presence or absence of petroleum contamination at the subject property as a part of a Phase II ESA. The soil borings were installed on the east and west sides of the existing gasoline USTs and the north and south sides of the pump island. Based on the screening results from soil boring installation, adsorbed-phase contamination is present in the vadose zone at the site, primarily near the pump island. Details of the soil boring installation are included in the *Limited Phase II Environmental Site Assessment, Former Stagecoach Facility*, dated May 1, 1998 (Ref. 3).

III. INVESTIGATIVE PROCEDURES

To further define the extent of subsurface petroleum contamination in the area of the former Stagecoach Transportation facility, the following additional investigative tasks were undertaken: installation of four monitoring wells; site survey; determination of groundwater flow direction and gradient; groundwater sampling and analyses for petroleum-related constituents; and an evaluation of sensitive receptors. The configuration of the monitoring well network proposed in the June 10, 1998, work plan (see Site Map, Appendix A) was revised in the field as follows. The wells were installed in locations similar to the soil borings installed on April 14, 1998. The well in the northwest quadrant (designated MW3) was moved farther north to be in a presumed downgradient location (based on the site topography) for the subject property and to avoid the municipal sewer reported to be located north of the pump island. The well in the northeast quadrant (designated MW1) was moved to the southwest quadrant due to lack of room for the original location and to avoid the municipal sewer in the vicinity between the north ends of the shed and the main facility building.

A. Monitoring Well Installation

On January 21 and 22, four monitoring wells were installed at the site (see Site Map in Appendix A). The boreholes were installed utilizing hollow-stem auger drilling methods. M&W Soils Engineering, Inc., of Charlestown, New Hampshire, installed the wells under the direct supervision of a Griffin geologist. During borehole advancement, two-foot soil samples were collected from every five foot run. Soils were screened for volatile organic compounds (VOCs)

using an HNu™ Model HW-101 portable photoionization detector (PID) using the Griffin Jar/Polyethylene Bag Headspace Screening Protocol, which conforms to state and industry standards. Soil characteristics and headspace concentrations were recorded by the geologist in detailed well logs which are presented in Appendix B. MW1 was installed at the west end of the USTs in a potential downgradient direction from the USTs. MW2 was installed as close as possible to the south side of the existing pump island. MW3 was installed in the presumed downgradient direction from the USTs, fuel oil UST, and the pump island. MW4 was installed in the presumed upgradient direction from the USTs and pump island.

Wells were completed with 2-inch diameter Schedule 40 PVC riser and factory-slotted screened intervals (0.010-inch slots). A silica sand pack was installed in the annular space surrounding the screened interval. The sand pack was brought to a minimum of one foot above the top of the screened interval. Each of the four wells was completed with a flush-mounted road box and secured with a compression cap. MW1, MW3, and MW4 were completed to depths of approximately 48 feet below grade and MW2 was completed to a depth of 52 feet below grade.

The soils encountered in the monitoring well boreholes generally consisted of light to medium brown, fine silty sand from below the asphalt to approximately 20 feet below grade. Soils from approximately 20 feet below grade to 47 feet below grade generally consisted of greenish gray to gray, interbedded silt, which is locally sandy, and sand which is locally silty with local lenses of sand and gravel. Volatile organic compounds (VOCs) were detected in the headspace of soil samples collected from the MW1, MW2, MW3, and MW4 boreholes. Minor petroleum odors were observed in soils samples collected from MW1, MW2, and MW4 boreholes. No petroleum staining was observed in the monitoring well boreholes.

Sediments encountered in the four wells were sand and silt with local gravel, which is consistent with the interpretation of the *Surficial Geologic Map of Vermont* (Ref. 1).

B. Determination of Groundwater Flow Direction and Gradient

The four wells were located in azimuth and elevation for inclusion on the Site Map presented in Appendix A. The top of PVC casing in MW1 was assigned an arbitrary elevation of 100.00 feet. The locations of the existing facility buildings and other prominent site features were surveyed for inclusion on this Site Map.

Prior to groundwater sampling on January 26, 1999, all four on-site monitoring wells were monitored for presence of free floating product and depths to water. Results are tabulated as Liquid Level Monitoring Data in Appendix C. No free-phase product was noted in the wells on January 26, 1999. For each well, the measured depth to water was subtracted from the surveyed elevation of the measurement reference point to determine the water table elevation. Water table elevations were plotted on the site map to generate the Groundwater Contour Map presented in

Appendix A. From this figure it can be seen that the groundwater flow is directed generally to the northeast toward the Third Branch of the White River at an approximate gradient of 1.1%.

C. Groundwater Sampling and Analyses

A groundwater sample was collected from each of the four monitoring wells, using disposable bailers, on January 26, 1999. Groundwater samples were analyzed by EPA Method 8260 by Endyne, Inc., laboratory of Williston, Vermont, for VOCs. Quality control (QC) samples (a trip blank and duplicate sample) were also collected. Analytical results are summarized in tabular form in Appendix D. The Vermont Groundwater Enforcement Standards (VGES) are provided for reference in this summary table. There are no VGES for the compounds isopropylbenzene and n-propylbenzene. Appendix D also contains the analytical laboratory reports. Analytical results of the trip blank and duplicate sample indicate that adequate Quality Assurance/ Quality Control was maintained throughout sample collection and analyses.

Benzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and methyl tertiary butyl ether (MTBE) were detected at concentrations above the VGES in the samples collected from MW1, MW2, and MW4 on January 26, 1999. Toluene was detected at a concentration above the VGES in the sample collected from MW4 on January 26, 1999. Select other VOCs were detected in the samples collected from MW1, MW2, and MW4 on January 26, 1999, at concentrations below the VGES, where such standards have been determined. Select VOCs were detected in MW3 at concentrations well below the applicable VGES, where such standards have been determined. Total VOC concentrations detected in the monitoring wells were plotted on the site map to generate the Contaminant Concentration Map contained in Appendix A.

IV. EVALUATION OF POTENTIALLY SENSITIVE RECEPTORS

The following potentially sensitive receptors in the vicinity of the former Stagecoach Transportation site were identified:

- ♦ the existing Stagecoach Transportation facility building,
- ♦ the Third Branch of the White River, located approximately 1,600 feet northeast of the former Stagecoach Transportation site.

Risks of vapor impact to the existing former Stagecoach Transportation facility building were determined to be minimal because the building has no basement and groundwater is found at an approximate depth of 42 feet below grade. Given the significant distance from the site to the Third Branch of the White River and the relative levels of contamination present, the current risks posed to this surface water body are likely to be minimal.

V. CONCLUSIONS

Based upon the results of the above investigative tasks, Griffin presents the following conclusions:

- 1) Based on the soil screening and laboratory analytical data from the previous Phase II investigation, and screening and laboratory analytical data from this investigation, it appears likely that the contamination at the site is the result of historical spills and overfills associated with the gasoline USTs fill ports and the operation of the dispensers at the site or from a previous UST installation.
- 2) MW1, MW3, and MW4 were installed to approximately 48 feet below grade, and MW3 was installed to a depth of 52 feet below grade on January 21 and 22, 1999.
- 3) Based on the screening results from monitoring well installation, adsorbed-phase contamination is present in the vadose zone at the site.
- 4) Groundwater was encountered at an approximate depth of 42 feet below grade on January 26, 1999. Based on the groundwater elevations measured on January 26, 1999, groundwater flows to the northeast at an average approximate gradient of 1.1%.
- 5) No free phase product has been detected at this site.
- 6) Select dissolved VOCs were detected at concentrations above the applicable VGES in the samples collected from MW1, MW2, and MW4 on January 26, 1999. Select dissolved VOCs were detected at concentrations below the applicable VGES in the sample collected from MW3 on January 26, 1999. It is expected that dissolved petroleum constituent concentrations will decrease over time with the progressive action of natural mitigative processes, including biodegradation, dispersion, and dilution.
- 7) Risks posed to potentially sensitive receptors in the vicinity of the former Stagecoach Transportation building appear minimal, based on currently available data.

VI. RECOMMENDATIONS

Based upon the above conclusions, Griffin recommends the following additional work.

- 1) To track migration of subsurface petroleum constituents at the site and document expected reductions in constituent concentrations, groundwater from MW1, MW2, and MW4 should be sampled and analyzed on a quarterly basis for one year. Samples should be analyzed by EPA Method 8021B for presence of BTEX and MTBE constituents. Recommendations for any

— up. gradient & down. gradient extent of plume not defined.

additional work that is warranted will be made depending on the results of the four rounds of sampling.

2) Because MW3 is in an apparently cross-gradient position from the apparent sources of contamination and the petroleum constituents detected in the sample collected from MW3 were detected at concentrations well below the applicable VGES, Griffin recommends that MW3 be removed from the sampling schedule. The depth to water in MW3 should be measured along with the other on-site wells during regular sampling of the other on-site wells.

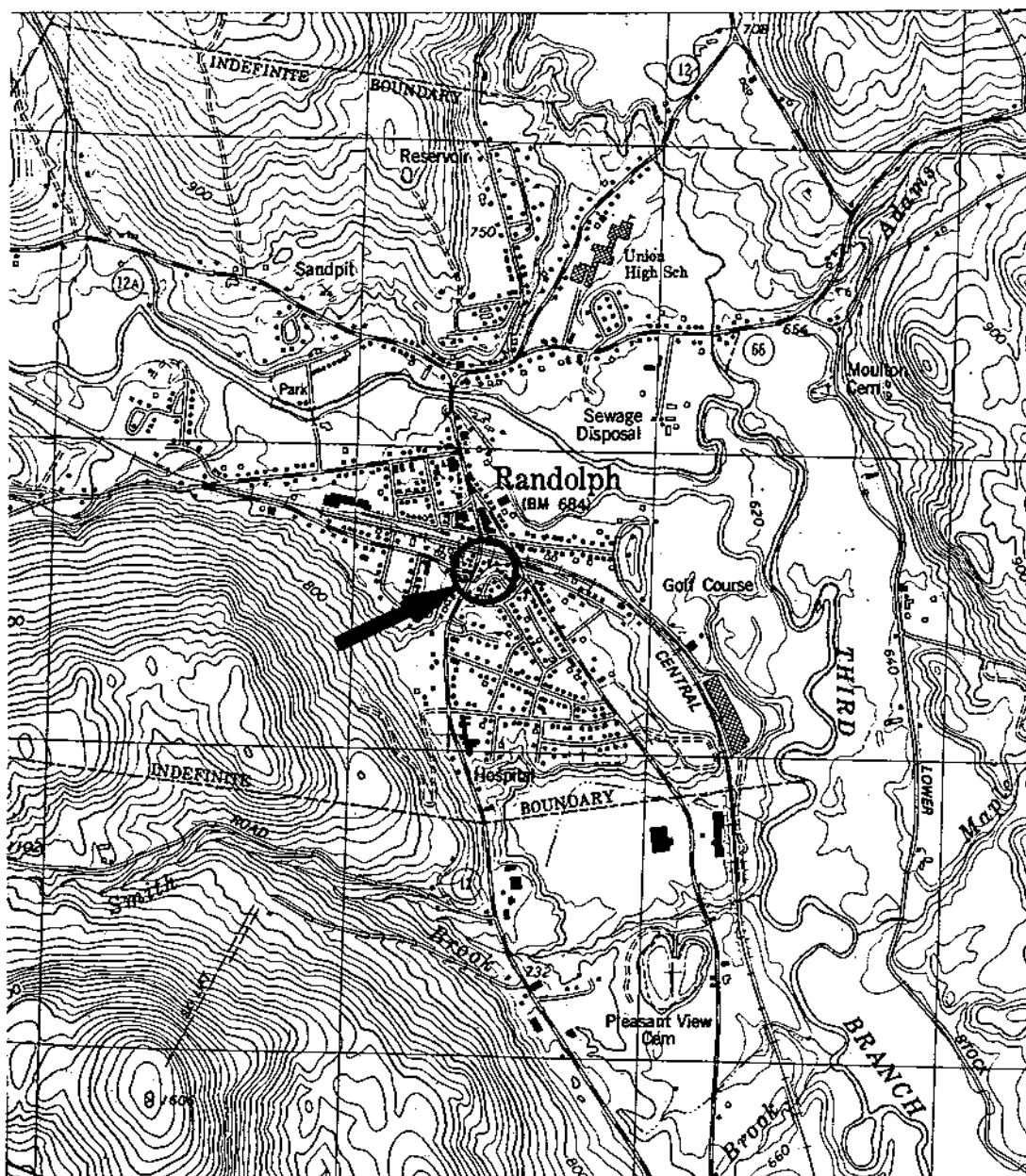
- need 3 wells to define
up. gradient & down. gradient edges
of plume
- MW-3 should be sampled 1 more time
before consideration of elimination from
sampling.
- 1 well down-gradient of F.O. tank
- use 8021 B

VII. REFERENCES

1. Doll, Charles G., D.P. Stewart, and P. MacClintock, eds., 1970, *Surficial Geologic Map of Vermont*, State of Vermont.
2. Doll, Charles G., W.M. Cady, J. B. Thompson, Jr., and M.P. Billings eds., 1961, *Centennial Geologic Map of Vermont*, State of Vermont.
3. Griffin International, Inc., May 1, 1998, *Limited Phase II Environmental Site Assessment, Former Stagecoach Facility*, with map, drilling logs, and laboratory results, 4 p.

APPENDIX A

Site Maps



SOURCE: USGS- RANDOLPH, VERMONT QUADRANGLE



JOB #: 3985300

FORMER STAGECOACH FACILITY

RANDOLPH, VERMONT

SITE LOCATION MAP

DATE: 2/19/99

DWG. #: 1

SCALE: 1:24000

DRN.: SB

APP.: TK

ROUTE 12/MAIN STREET

APPROX. LOCATION OF
EXISTING 500 GALLON
FUEL OIL AST.



MW3

FORMER
STAGECOACH
FACILITY

SHED



MW2

MW4

MW1

LOCATION OF (2) EXISTING
6,000 GALLON USTs

LEGEND



MONITORING WELL

— — — — — PROPERTY LINE



JOB #: 3985300

FORMER STAGECOACH FACILITY

RANDOLPH, VERMONT

SITE MAP

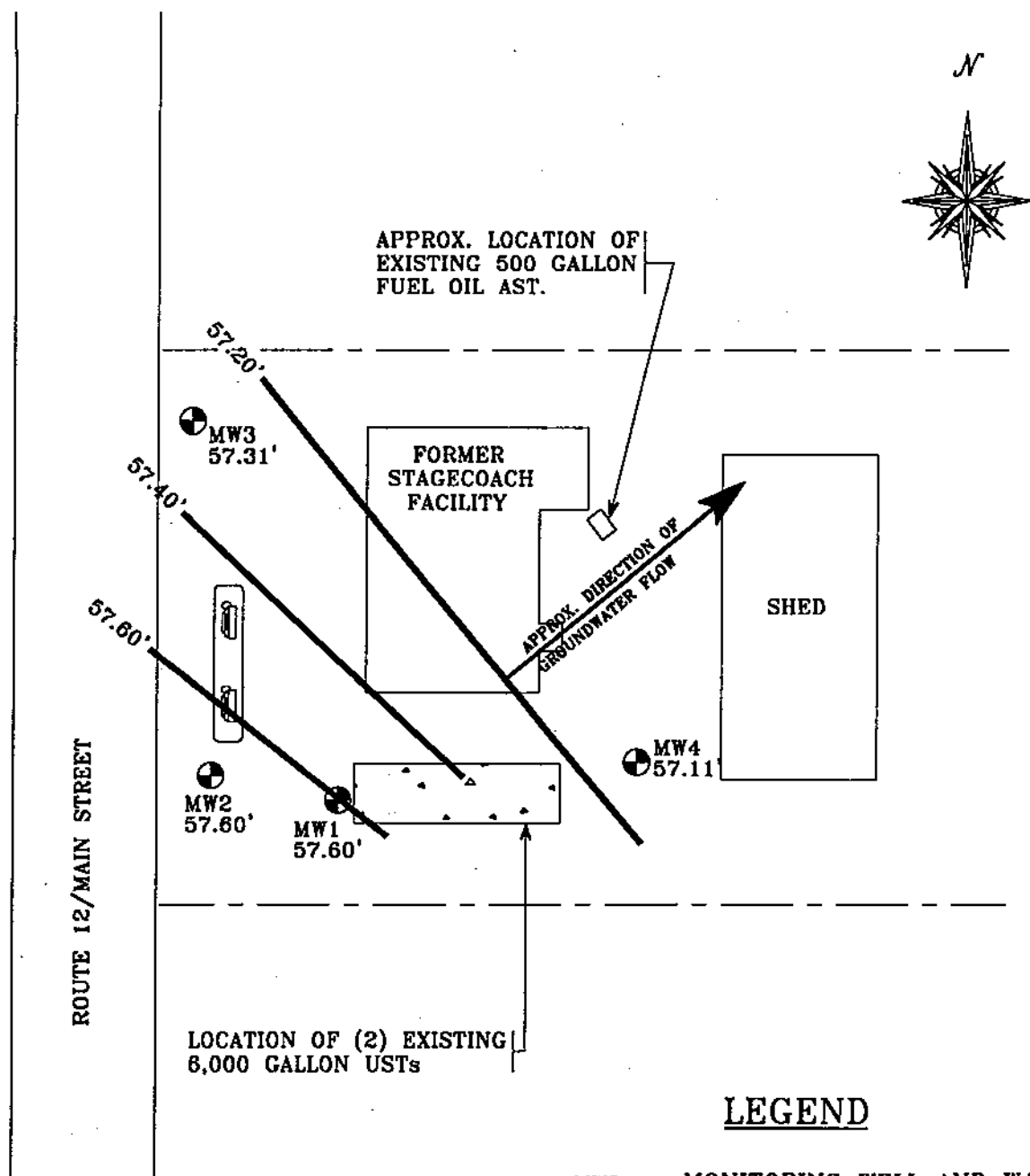
DATE: 2/15/98

DWG.#:2




SCALE: 1"=30'

DRN.:SB

APP.:TK



LEGEND

-  MW2 57.60' MONITORING WELL AND WATER TABLE ELEVATION IN FEET
-  57.4' GROUNDWATER CONTOUR IN FEET (DASHED WHERE INFERRED)
-  - - - - - PROPERTY LINE



JOB #: 3985300

FORMER STAGECOACH FACILITY

RANDOLPH, VERMONT

GROUNDWATER CONTOUR MAP
MEASUREMENT DATE: 1/26/99

DATE: 2/16/99

DWG.#:3

SCALE: 1"=30'

DRN.:SB

APP.:TK

ROUTE 12/MAIN STREET

MW3
38.8



MW2
2,754

MW1
5,311

APPROX. LOCATION OF
EXISTING 500 GALLON
FUEL OIL AST.

FORMER
STAGECOACH
FACILITY

SHED

MW4
9,909

LOCATION OF (2) EXISTING
8,000 GALLON USTs



LEGEND

MW2
2,754

MONITORING WELL AND TOTAL
VOCs CONCENTRATION (ppb)

PROPERTY LINE



JOB #: 3985300

FORMER STAGECOACH FACILITY

RANDOLPH, VERMONT

CONTAMINANT CONCENTRATION MAP
SAMPLE DATE: 1/26/99

DATE: 2/16/99

DWG.#:4

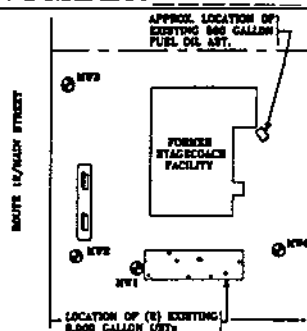
SCALE: 1"=30'

DRN.:SB

APP.:TK

APPENDIX B

Monitoring Well Logs

PROJECT FORMER STAGECOACH FACILITY PAGE 1 OF 2LOCATION RANDOLPH, VERMONTDATE DRILLED 1/21/99 TOTAL DEPTH OF HOLE 48.0'DIAMETER 4.25"SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"CASING DIA. 2" LENGTH 37.5' TYPE sch 40 pvcDRILLING CO. M&W DRILLING METHOD HSADRILLER MYRON DOMINGUE LOG BY T. KELLEYWELL NUMBER MW1Site
Sketch

GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		LOCKING WELL CAP			1
2		CONCRETE			2
3		NATIVE BACKFILL			3
4		BENTONITE			4
5					5
6			0'-5' 0 ppm	SILT WITH SAND (ML)- 80% silt, rapid dilatancy, low toughness, low plasticity fines; 15% sand, 5% gravel; moist, medium brown, no HCL reaction, <i>Low dry strength</i>	6
7			5'-7' 10/15/17/15 0 ppm 24/18	WELL GRADED SAND (SW)- 5% silt, no plasticity fines; 85% fine to coarse sand, 10% gravel, well graded; moist, light grayish brown, stratified, no HCL reaction.	7
8					8
9					9
10					10
11		NATIVE BACKFILL	10'-12' 4/6/7/7 0 ppm 24/21	SILTY SAND (SM)- 20% silt, rapid dilatancy, low toughness, no plasticity fines; 80% fine, subangular sand, poorly graded; moist, light brown, laminated, no HCL reaction.	11
12					12
13					13
14					14
15					15
16			15'-17' 4/5/6/7 0.1 ppm 24/19	SILTY SAND (SM)- 30% silt, rapid dilatancy, low toughness, low plasticity fines; 70% fine, subangular sand, poorly graded; moist, light grayish brown, stratified, no HCL reaction.	16
17					17
18					18
19		WELL RISER			19
20			20'-25' 3/3/7/9	Same as above.	20
21			20'-20.1' 0 ppm	SILT WITH SAND (ML)- 80% silt, rapid dilatancy, low toughness, no plasticity, low dry strength fines; 20% fine,	21
22			20.1'-21.5' 1.8 ppm	subangular sand; wet, greenish gray, laminated, no HCL reaction.	22
23			21.5'-22' 0 ppm 24/20	POORLY GRADED SAND (SP)- 5% silt, no plasticity fines; 95% fine, subangular sand, poorly graded; moist, orange to light brown, laminated, no HCL reaction.	23
24					24
25					25

PROJECT FORMER STAGECOACH FACILITY PAGE 2 OF 2

LOCATION RANDOLPH, VERMONT

DATE DRILLED 1/21/99 TOTAL DEPTH OF HOLE 48.0'

DIAMETER 4.25"

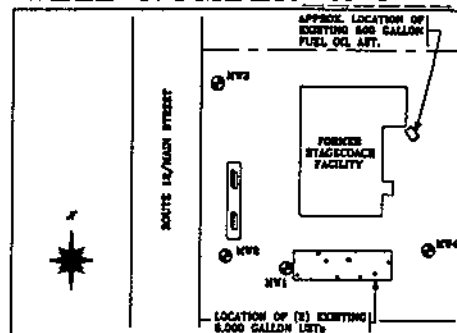
SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"

CASING DIA. 2" LENGTH 37.5' TYPE sch 40 pvc

DRILLING CO. M&W DRILLING METHOD HSA

DRILLER MYRON DOMINGUE LOG BY T. KELLEY

WELL NUMBER MW1



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
25			PENETRATION/RECOVERY		25
26			25'-30' 3/4/5/4	SILTY SAND (SM)- 30% silt, rapid dilatancy, no plasticity fines; 70% fine, subangular sand, poorly graded; moist, light gray, stratified, no HCL reaction.	26
27		NATIVE BACKFILL	25'-25.6' 6.6 ppm	SILT WITH SAND (ML)- 80% silt, rapid dilatancy, low toughness, no plasticity, low dry strength, fines; 20% fine, subangular sand, wet, gray, laminated, no HCL reaction.	27
28			25.6'-27' 6.6 ppm		28
29			24/22		29
30				Same as above.	30
31		WELL RISER	30'-35' 6/7/6/6	POORLY GRADED SAND (SP)- 5% silt, no plasticity, fines; 95% fine, subangular sand, poorly graded, moist, light brown, stratified, no HCL reaction.	31
32			30.2'-30.8' 20 ppm	SANDY SILT (ML)- 60% silt, rapid dilatancy, low toughness, no plasticity, low dry strength, fines; 40% fine, subangular sand, moist, olive gray, laminated, no HCL reaction.	32
33			30.8'-32' 20 ppm		33
34			24/23		34
35		BENTONITE	35'-37' 3/3/3/4	SILT WITH SAND (ML)- 80% silt, rapid dilatancy, low toughness, no plasticity, low dry strength, fines; 20% fine, subangular sand, wet, olive gray, laminated, no HCL reaction.	35
36			24/20		36
37					37
38					38
39		SAND PACK	40'-45' 2/9/10/12		39
40			40'-41' 2.7 ppm	Same as above.	40
41			41'-42' 2.7 ppm	SILTY SAND (SM)- 30% silt, rapid dilatancy, low toughness, no plasticity, low dry strength, fines; 70% fine, subangular sand, poorly graded, wet, olive gray, stratified, no HCL reaction.	41
42			24/16		42
43		WELL SCREEN			43
44				43.0' WATER TABLE	44
45					45
46					46
47		BOTTOM CAP			47
48		UNDISTURBED NATIVE SOIL		BASE OF WELL AT 48'	48
49				END OF EXPLORATION AT 48'	49
50					50

PROJECT FORMER STAGECOACH FACILITY PAGE 1 OF 2

LOCATION RANDOLPH, VERMONT

DATE DRILLED 1/21/99 TOTAL DEPTH OF HOLE 47.0'

DIAMETER 4.25"

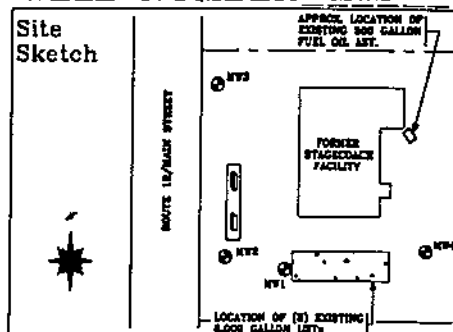
SCREEN DIA. 2" LENGTH 12.0' SLOT SIZE 0.010"

CASING DIA. 2" LENGTH 39.5' TYPE sch 40 pvc

DRILLING CO. M&W DRILLING METHOD HSA

DRILLER MYRON DOMINGUE LOG BY T. KELLEY

WELL NUMBER MW2



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX		Asphalt	0
1		LOCKING WELL CAP			1
2		CONCRETE			2
3		NATIVE BACKFILL		SILTY SAND WITH GRAVEL (SM)- 35% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 50% fine to coarse, subangular sand, 15% gravel, moist, medium brown to gray, stratified, no HCL reaction.	3
4					4
5		BENTONITE		Same as above.	5
6			5'-10' 4/16/12/9	WELL GRADED SAND (SW)- 5% silt, no plasticity, fines; 85% fine to coarse, subangular sand, 10% subangular to subrounded gravel, well graded, moist, light brown, stratified, no HCL reaction.	6
7			5.5'-7' 0.1 ppm 24/19		7
8					8
9					9
10					10
11		NATIVE BACKFILL	10'-12' 4-4-5-3 10'-12' 0.1 ppm 24/23	SILTY SAND (SM)- 20% silt, no plasticity fines; 80% fine, sand, poorly graded; moist, light brown, laminated, no HCL reaction.	11
12					12
13					13
14					14
15					15
16			15'-17' 5/6/8/8 49 ppm 24/22	SILTY SAND (SM)- 20% silt, no plasticity fines; 80% fine, sand, poorly graded; moist, light grayish brown, stratified, no HCL reaction.	16
17					17
18					18
19		WELL RISER			19
20			20'-25' 4/7/7/5		20
21			20'-21.5' 164 ppm	SILTY SAND (SM)- 20% silt, rapid dilatancy, no plasticity, fines; 80% fine, subangular sand, poorly graded, moist, light grayish brown, stratified and laminated, no HCL reaction.	21
22			21.5'-22' 164 ppm 24/24	SILT WITH SAND (ML)- 85% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 15% fine, subangular sand, wet, olive gray, laminated, no HCL reaction.	22
23					23
24					24
25					25
26			25'-30' 5/7/7/8 24/18	SILT (ML)- 90% silt, rapid dilatancy, low toughness, low plasticity, fines; 10% fine, subangular sand, wet, greenish gray, laminated, no HCL reaction. low dry strength.	26

PROJECT FORMER STAGECOACH FACILITY PAGE 2 OF 2

LOCATION RANDOLPH, VERMONT

DATE DRILLED 1/21/99 TOTAL DEPTH OF HOLE 42.0'

DIAMETER 4.25"

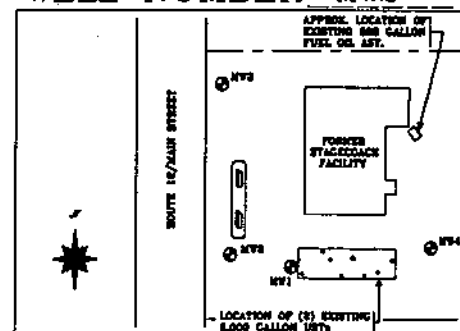
SCREEN DIA. 2" LENGTH 12.0' SLOT SIZE 0.010"

CASING DIA. 2" LENGTH 39.5' TYPE sch 40 pvc

DRILLING CO. M&W DRILLING METHOD HSA

DRILLER MYRON DOMINGUE LOG BY T. KELLEY

WELL NUMBER MW2



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
26			26'-27' 9.4 ppm	SILTY SAND (SM)- 20% silt, no plasticity, fines; 80% fine, subangular sand, poorly graded, moist, light brown, laminated, no HCL reaction.	26
27		NATIVE BACKFILL			27
28					28
29					29
30				SANDY SILT (ML)- 55% silt, rapid dilatancy, low toughness, low plasticity, fines; 45% fine, subangular sand, moist, light olive gray, stratified, no HCL reaction, <i>Low D.S.</i>	30
31		WELL RISER	30'-35' 4/5/6/8		31
32			30'-32' 22 ppm		32
33			24/24		33
34					34
35				SILT (ML)- 95% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 5% fine, subangular sand, wet, olive gray, stratified, no HCL reaction.	35
36		BENTONITE	35'-40' 4/4/12/20		36
37			24/22		37
38			0 ppm	SILTY SAND (SM)- 35% silt, low plasticity, fines; 65% fine, subangular sand, poorly graded, moist, light olive gray, laminated, no HCL reaction.	38
39					39
40			40'-45' 6/8/11/11		40
41		SAND PACK	40'-40.5' 4.9 ppm	SILT WITH SAND (ML)- 80% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 20% fine, subangular sand, wet, olive gray, laminated, no HCL reaction.	41
42			40.5'-42' 4.9 ppm		42
43			24/23	POORLY GRADED SAND (SP)- 5% silt, no plasticity, fines; 95% fine, subangular sand, poorly graded, moist, light olive gray and rust, stratified, no HCL reaction.	43
44					44
45		WELL SCREEN		43.0' WATER TABLE	45
46					46
47			45'-50' 3/4/5/7	SILTY SAND (SM)- 45% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 55% fine, subangular sand, poorly graded, wet, gray, stratified, no HCL reaction.	47
48			13.4 ppm		48
49			24/19		49
50					50
51		BOTTOM CAP			51
52		UNDISTURBED NATIVE SOIL		BASE OF WELL AT 52' END OF EXPLORATION AT 52'	52

PROJECT FORMER STAGECOACH FACILITY PAGE 1 OF 2

LOCATION RANDOLPH, VERMONT

DATE DRILLED 1/21/99 TOTAL DEPTH OF HOLE 48.0'

DIAMETER 4.25"

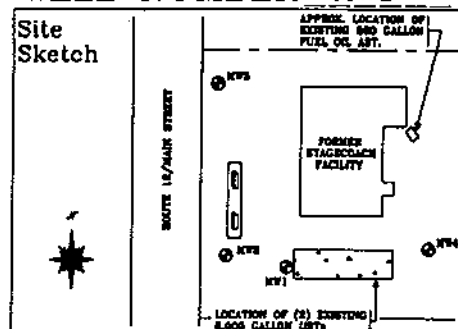
SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"

CASING DIA. 2" LENGTH 37.5' TYPE sch 40 pvc

DRILLING CO. M&W DRILLING METHOD HSA

DRILLER MYRON DOMINGUE LOG BY T. KELLEY

WELL NUMBER MW3



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX LOCKING WELL CAP	PENETRATION/RECOVERY		0
1		CONCRETE			1
2		NATIVE BACKFILL		SILTY SAND (SM)- 45% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 45% subangular sand, 10% subrounded gravel, moist, medium brown, stratified, no HCL reaction.	2
3					3
4		BENTONITE			4
5					5
6			5'-10' 4/5/4/5	SILTY SAND (SM)- 30% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 65% fine to coarse sand, 5% gravel, bimodal, moist, medium brown, stratified, no HCL reaction.	6
7			5'-5.4' 0 ppm		7
8			5.4'-6.1' 0 ppm	SANDY SILT (ML)- 60% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 40% fine, subangular sand, moist, strong brown to greenish gray, homogeneous, no HCL reaction.	8
9			6.1'-7' 0 ppm		9
10		NATIVE BACKFILL	24/23	SILTY SAND (SM)- 15% silt, no plasticity, fines; 85% subangular sand, poorly graded, moist, greenish gray, stratified, no HCL reaction.	10
11					11
12					12
13					13
14					14
15					15
16			15'-17' 4/4/6/7 24/21 0 ppm	SILTY SAND (SM)- 15% silt, no plasticity fines; 85% fine, subangular sand, poorly graded; moist, light gray, laminated.	16
17					17
18					18
19		WELL RISER			19
20			20'-25' 3/3/7/9 21.5'-22' 0 ppm	SILT WITH SAND (ML)- 75% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 25% fine, subangular sand, moist, olive gray, no HCL reaction.	20
21					21
22					22
23					23
24					24
25					25

PROJECT FORMER STAGECOACH FACILITY PAGE 2 OF 2

LOCATION RANDOLPH, VERMONT

DATE DRILLED 1/21/99 TOTAL DEPTH OF HOLE 48.0'

DIAMETER 4.25"

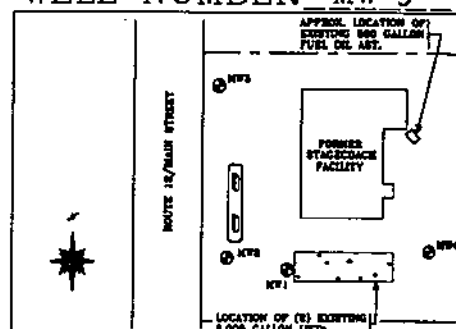
SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"

CASING DIA. 2" LENGTH 37.5' TYPE sch 40 pvc

DRILLING CO. M&W DRILLING METHOD HSA

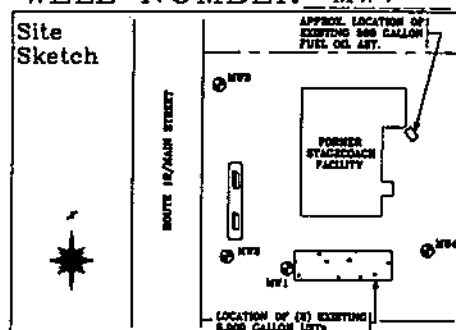
DRILLER MYRON DOMINGUE LOG BY T. KELLEY

WELL NUMBER MW 3



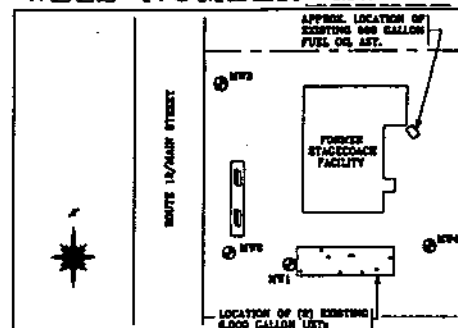
GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
25			PENETRATION/RECOVERY		25
26					26
27		NATIVE BACKFILL	25'-30' 4/4/3/5	SILT WITH SAND (ML)- 75% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 25% fine sand, moist, olive gray, stratified, no HCL reaction.	27
28			25'-26.5' 23 ppm	SILTY SAND (SM)- 40% silt, rapid dilatancy, low toughness, low plasticity, fines; 60% fine, subangular sand, moist, light gray, laminated, no HCL reaction.	28
29			26.5'-27' 23 ppm		29
30			24/19		30
31		WELL RISER	30'-35' 5/7/7/7	SILTY SAND (SM)- 45% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 55% fine, subangular sand, poorly graded, moist, olive gray, stratified, no HCL reaction.	31
32			30'-32' 6.9 ppm		32
33			30.8'-32' 20 ppm		33
34			24/19		34
35		BENTONITE			35
36			35'-37' 2/2/2/7	SILT (ML)- 90% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 5% fine, subangular sand, wet, olive gray, laminated, no HCL reaction.	36
37			Open		37
38			24/21		38
39		SAND PACK			39
40					40
41			40'-45' 4/5/4/5	SILTY SAND (SM)- 15% silt, no plasticity, fines; 85% fine, subangular sand, poorly graded, moist, light gray to rust, stratified, no HCL reaction.	41
42			40'-42' 2.1 ppm		42
43		WELL SCREEN	24/23		43
44				43.0' WATER TABLE	44
45					45
46			45'-50' 2/2/4/8	SILT (ML)- 90% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 10% fine, subangular sand, wet, gray, homogeneous, no HCL reaction.	46
47		BOTTOM CAP	45'-47' 0.4 ppm	SILTY SAND (SM)- 30% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 70% fine, subangular sand, poorly graded, wet, gray, stratified, no HCL reaction.	47
48		UNDISTURBED NATIVE SOIL	24/17		48
49					49
50				BASE OF WELL AT 48' END OF EXPLORATION AT 48'	50

PROJECT FORMER STAGECOACH FACILITY PAGE 1 OF 2LOCATION RANDOLPH, VERMONTDATE DRILLED 1/21/99 TOTAL DEPTH OF HOLE 50.0'DIAMETER 4.25"SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"CASING DIA. 2" LENGTH 37.5' TYPE sch 40 pvcDRILLING CO. M&W DRILLING METHOD HSADRILLER MYRON DOMINGUE LOG BY T. KELLEYWELL NUMBER MW4

GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS PENETRATION/ RECOVERY	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX LOCKING WELL CAP			0
1		CONCRETE			1
2		NATIVE BACKFILL			2
3					3
4		BENTONITE			4
5			5'-10' 9/16/12/9	SILTY SAND WITH GRAVEL (SM)- 25% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 55% fine to coarse, subangular to subrounded sand, 20% gravel, well graded, medium brown, moist, stratified, no HCL reaction	5
6			5'-7' 0 ppm 24/18		6
7					7
8					8
9				SILTY SAND WITH GRAVEL (SM)- 25% silt, low plasticity, fines; 75% fine, subangular sand, poorly graded, gray, moist, stratified and laminated, no HCL reaction.	9
10		NATIVE BACKFILL	10'-15' 8/10/12/14	SILTY SAND (SM)- 15% silt, low plasticity, fines; 85% fine, subangular sand, poorly graded, light brown, moist, laminated, no HCL reaction.	10
11			10'-12' 11.8 ppm 24/21		11
12					12
13					13
14					14
15			15'-17' 5/6/6/7	SILTY SAND (SM)- 20% silt, no plasticity fines; 80% fine, subangular sand, moist, light gray, stratified, no HCL reaction.	15
16			0 ppm 24/21		16
17					17
18					18
19		WELL RISER		SANDY SILT (ML)- 55% silt, rapid dilatancy, low toughness, low plasticity, low dry strength fines; 45% fine, subangular sand, olive gray, moist, laminated, no HCL reaction.	19
20			20'-25' 6/11/10/8	POORLY GRADED SAND WITH SILT (SP-SM)- 10% silt, no plasticity, fines; 90% fine, subangular sand, poorly graded, light brown, moist, laminated, no HCL reaction.	20
21			20'-22' 4.1 ppm 24/20		21
22					22
23					23
24					24
25					25

PROJECT FORMER STAGECOACH FACILITY PAGE 2 OF 2LOCATION RANDOLPH, VERMONTDATE DRILLED 1/21/99 TOTAL DEPTH OF HOLE 50.0'DIAMETER 4.25"SCREEN DIA. 2" LENGTH 10.0' SLOT SIZE 0.010"CASING DIA. 2" LENGTH 37.5' TYPE sch 40 pvcDRILLING CO. M&W DRILLING METHOD HSADRILLER MYRON DOMINGUE LOG BY T. KELLEYWELL NUMBER MW4

GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS PENETRATION/ RECOVERY	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
25					25
26					26
27					27
28					28
29					29
30					30
31					31
32					32
33					33
34					34
35					35
36					36
37					37
38					38
39					39
40					40
41					41
42					42
43					43
44					44
45					45
46					46
47					47
48					48
49					49
50					50

NATIVE
BACKFILL

WELL RISER

BENTONITE

SAND PACK

WELL SCREEN

BOTTOM CAP

UNDISTURBED
NATIVE SOIL

25'-30' 8/9/9/8

25'-27'

4.1 ppm

24/19

30'-32' 9/13/11/11

30.5'-32'

0.2 ppm

24/20

35'-40' 7/7/7/6

35'-37'

39 ppm

40'-45' 4/5/5/9

40'-42'

1.2 ppm

24/18

45'-50' 3/4/4/4

45'-47'

31 ppm

24/23

SANDY SILT (ML)- 55% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 45% fine, subangular sand, olive gray to light brown, moist, laminated and stratified, no HCL reaction.

SANDY SILT (ML)- 65% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 35% fine, subangular sand, olive gray, moist, no HCL reaction.

POORLY GRADED SAND (SP)- 5% silt, no plasticity, fines; 95% fine, subangular sand, poorly graded, light grayish brown, laminated and stratified, no HCL reaction.

SANDY SILT (ML)- 65% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 35% fine, subangular sand, wet, olive gray, stratified, no HCL reaction.

SILTY SAND (SM)- 30% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 70% fine, subangular sand, poorly graded, olive gray, moist, stratified, no HCL reaction.

SANDY SILT (ML)- 55% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 45% fine, subangular sand, olive gray, wet, stratified, no HCL reaction.

46.0' WATER TABLE

SANDY SILT (ML)- 60% silt, rapid dilatancy, low toughness, low plasticity, low dry strength, fines; 40% fine, subangular sand, olive gray then gray, wet, stratified, no HCL reaction.

BASE OF WELL AT 48'
END OF EXPLORATION AT 48'

APPENDIX C

Liquid Level Data

**Liquid Level Monitoring Data, Former Stagecoach Facility
Randolph, VT**

Monitoring Date: 12-30-98

Well I.D.	Top of Casing Elevation	Depth to Product	Depth to Water	Product Thickness	Water Table Elevation
MW-1	100.00	-	42.40	-	57.60
MW-2	99.91	-	42.31	-	57.60
MW-3	99.39	-	42.08	-	57.31
MW-4	100.69	-	43.58	-	57.11

Note: All values reported in feet.

NM = Not Measured

APPENDIX D

Groundwater Quality Data, January 26, 1999

**Summary of Groundwater Quality Data, Former Stagecoach Facility
Randolph, VT**

DETECTED PARAMETERS	1-26-99				VGES*
	MW1	MW2	MW3	MW4	
Benzene	243.	107.	1.3	1,010.	5
Chloroform	ND(50)	ND(20)	1.8	ND(20)	6
Isopropylbenzene	ND(50)	ND(20)	ND(1)	31.2	--
n-Propylbenzene	ND(50)	ND(20)	ND(1)	81.6	--
Ethylbenzene	58.0	40.4	ND(1)	361.	700
Toluene	438.	118.	ND(1)	1,950.	1000
1,2,4-Trimethylbenzene	190.	110.	2.5	781.	5
1,3,5-Trimethylbenzene	64.0	47.6	1.4	274.	4
Xylenes	448.	331.	5.7	2,670.	10000
MTBE	3,870.	2,000.	26.1	2,750.	40
Total Detected VOCs	5,311.	2,754.	38.8	9,909.	-

All values reported in ug/L (ppb)

Detections are Bold

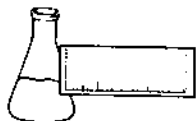
Values greater than the applicable Groundwater Standard are shaded

NA - Not Analyzed

ND(1000) - Not Detected (Detection Limit)

TBQ(1) - Trace Below Quantitation Limit (Detection Limit)

VGES - Vermont Groundwater Enforcement Standard



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CLIENT: Griffin International
PROJECT: Stagecoach/#3985300
REPORT DATE: February 11, 1999
REVISED REPORT February 11 1999

ORDER ID: 1175
DATE RECEIVED: January 27, 1999

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

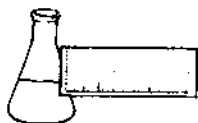
Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits, unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

**ENDYNE, INC.****Laboratory Services**

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

SW 8260

CLIENT: Griffin International
PROJECT: Stagecoach/#3985300

SITE: Trip Blank

DATE RECEIVED: January 27, 1999

REPORT DATE: February 5, 1999

ANALYSIS DATE: February 1, 1999

ORDER ID: 1175

REFERENCE NUMBER: 134212

DATE SAMPLED: January 26, 1999

TIME SAMPLED: 7:10 AM

SAMPLER: DT

ANALYST: 725

Parameter	Result	Parameter	Result
	<u>ug/L</u>		<u>ug/L</u>
Benzene	< 1.0	Hexachlorobutadiene	< 5.0
Bromobenzene	< 1.0	Isopropylbenzene	< 1.0
Bromochloromethane	< 2.0	p-Isopropyltoluene	< 1.0
Bromodichloromethane	< 1.0	Methylene Chloride	< 5.0
Bromoform	< 1.0	MTBE	< 2.0
Bromomethane	< 5.0	Naphthalene	< 5.0
n-Butylbenzene	< 1.0	n-Propylbenzene	< 1.0
sec-Butylbenzene	< 1.0	Styrene	< 1.0
tert-Butylbenzene	< 1.0	1,1,1,2-Tetrachloroethane	< 2.0
Carbon Tetrachloride	< 1.0	1,1,2,2-Tetrachloroethane	< 2.0
Chlorobenzene	< 1.0	Tetrachloroethene	< 1.0
Chloroethane	< 5.0	Toluene	< 1.0
Chloroform	< 1.0	1,2,3-Trichlorobenzene	< 2.0
Chloromethane	< 10.0	1,2,4-Trichlorobenzene	< 2.0
2-Chlorotoluene	< 2.0	1,1,1-Trichloroethane	< 1.0
4-Chlorotoluene	< 2.0	1,1,2-Trichloroethane	< 1.0
Dibromochloromethane	< 1.0	Trichloroethene	< 1.0
1,2-Dibromo-3-Chloropropane	< 2.0	Trichlorofluoromethane	< 2.0
1,2-Dibromoethane	< 2.0	1,2,3-Trichloropropane	< 1.0
Dibromomethane	< 2.0	1,2,4-Trimethylbenzene	< 1.0
1,2-Dichlorobenzene	< 1.0	1,3,5-Trimethylbenzene	< 1.0
1,3-Dichlorobenzene	< 1.0	Vinyl Chloride	< 5.0
1,4-Dichlorobenzene	< 1.0	Xylenes, Total	< 2.0
Dichlorodifluoromethane	< 10.0	Surrogate 1	106.0%
1,1-Dichloroethane	< 1.0	Surrogate 2	110.0%
1,2-Dichloroethane	< 1.0	Surrogate 3	94.2%
1,1-Dichloroethene	< 1.0	UIP's	0.
cis-1,2-Dichloroethene	< 1.0		
trans-1,2-Dichloroethene	< 1.0		
1,2-Dichloropropane	< 1.0		
1,3-Dichloropropane	< 1.0		
2,2-Dichloropropane	< 1.0		
1,1-Dichloropropene	< 1.0		
cis-1,3-Dichloropropene	< 1.0		
trans-1,3-Dichloropropene	< 1.0		
Ethylbenzene	< 1.0		



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
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LABORATORY REPORT

SW 8260

CLIENT: Griffin International

PROJECT: Stagecoach/#3985300

SITE: MW #1

DATE RECEIVED: January 27, 1999

REPORT DATE: February 11, 1999

ANALYSIS DATE: February 4, 1999

ORDER ID: 1175

REFERENCE NUMBER: 134216

DATE SAMPLED: January 26, 1999

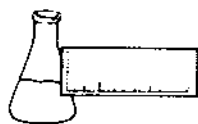
TIME SAMPLED: 12:03 PM

SAMPLER: DT

ANALYST: 725

Parameter	Result ug/L
Benzene	243.
Bromobenzene	< 50.0
Bromochloromethane	< 100.
Bromodichloromethane	< 50.0
Bromoform	< 50.0
Bromomethane	< 250.
n-Butylbenzene	< 50.0
sec-Butylbenzene	< 50.0
tert-Butylbenzene	< 50.0
Carbon Tetrachloride	< 50.0
Chlorobenzene	< 50.0
Chloroethane	< 250.
Chloroform	< 50.0
Chloromethane	< 500.
2-Chlorotoluene	< 100.
4-Chlorotoluene	< 100.
Dibromochloromethane	< 50.0
1,2-Dibromo-3-Chloropropane	< 100.
1,2-Dibromoethane	< 100.
Dibromomethane	< 100.
1,2-Dichlorobenzene	< 50.0
1,3-Dichlorobenzene	< 50.0
1,4-Dichlorobenzene	< 50.0
Dichlorodifluoromethane	< 500.
1,1-Dichloroethane	< 50.0
1,2-Dichloroethane	< 50.0
1,1-Dichloroethene	< 50.0
cis-1,2-Dichloroethene	< 50.0
trans-1,2-Dichloroethene	< 50.0
1,2-Dichloropropane	< 50.0
1,3-Dichloropropane	< 50.0
2,2-Dichloropropane	< 50.0

Parameter	Result ug/L
1,1-Dichloropropene	< 50.0
cis-1,3-Dichloropropene	< 50.0
trans-1,3-Dichloropropene	< 50.0
Ethylbenzene	58.0
Hexachlorobutadiene	< 250.
Isopropylbenzene	< 50.0
p-Isopropyltoluene	< 50.0
Methylene Chloride	< 250.
MTBE	3,870.
Naphthalene	< 250.
n-Propylbenzene	< 50.0
Styrene	< 50.0
1,1,1,2-Tetrachloroethane	< 100.
1,1,2,2-Tetrachloroethane	< 100.
Tetrachloroethene	< 50.0
Toluene	438.
1,2,3-Trichlorobenzene	< 100.
1,2,4-Trichlorobenzene	< 100.
1,1,1-Trichloroethane	< 50.0
1,1,2-Trichloroethane	< 50.0
Trichloroethene	< 50.0
Trichlorofluoromethane	< 100.
1,2,3-Trichloropropane	< 50.0
1,2,4-Trimethylbenzene	190.
1,3,5-Trimethylbenzene	64.0
Vinyl Chloride	< 250.
Xylenes, Total	448.
Surrogate 1	108.%
Surrogate 2	93.1%
Surrogate 3	95.9%
UIP's	5.

**ENDYNE, INC.****Laboratory Services**

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT**SW 8260**

CLIENT: Griffin International
PROJECT: Stagecoach/#3985300

SITE: MW #2

DATE RECEIVED: January 27, 1999

REPORT DATE: February 11, 1999

ANALYSIS DATE: February 4, 1999

ORDER ID: 1175

REFERENCE NUMBER: 134215

DATE SAMPLED: January 26, 1999

TIME SAMPLED: 11:44 AM

SAMPLER: DT

ANALYST: 725

<u>Parameter</u>	<u>Result</u> <u>ug/L</u>
Benzene	107.
Bromobenzene	< 20.0
Bromochloromethane	< 40.0
Bromodichloromethane	< 20.0
Bromoform	< 20.0
Bromomethane	< 100.
n-Butylbenzene	< 20.0
sec-Butylbenzene	< 20.0
tert-Butylbenzene	< 20.0
Carbon Tetrachloride	< 20.0
Chlorobenzene	< 20.0
Chloroethane	< 100.
Chloroform	< 20.0
Chloromethane	< 200.
2-Chlorotoluene	< 40.0
4-Chlorotoluene	< 40.0
Dibromochloromethane	< 20.0
1,2-Dibromo-3-Chloropropane	< 40.0
1,2-Dibromoethane	< 40.0
Dibromomethane	< 40.0
1,2-Dichlorobenzene	< 20.0
1,3-Dichlorobenzene	< 20.0
1,4-Dichlorobenzene	< 20.0
Dichlorodifluoromethane	< 200.
1,1-Dichloroethane	< 20.0
1,2-Dichloroethane	< 20.0
1,1-Dichloroethene	< 20.0
cis-1,2-Dichloroethene	< 20.0
trans-1,2-Dichloroethene	< 20.0
1,2-Dichloropropane	< 20.0
1,3-Dichloropropane	< 20.0
2,2-Dichloropropane	< 20.0

<u>Parameter</u>	<u>Result</u> <u>ug/L</u>
1,1-Dichloropropene	< 20.0
cis-1,3-Dichloropropene	< 20.0
trans-1,3-Dichloropropene	< 20.0
Ethylbenzene	40.4
Hexachlorobutadiene	< 100.
Isopropylbenzene	< 20.0
p-Isopropyltoluene	< 20.0
Methylene Chloride	< 100.
MTBE	2,000.
Naphthalene	< 100.
n-Propylbenzene	< 20.0
Styrene	< 20.0
1,1,1,2-Tetrachloroethane	< 40.0
1,1,2,2-Tetrachloroethane	< 40.0
Tetrachloroethene	< 20.0
Toluene	118.
1,2,3-Trichlorobenzene	< 40.0
1,2,4-Trichlorobenzene	< 40.0
1,1,1-Trichloroethane	< 20.0
1,1,2-Trichloroethane	< 20.0
Trichloroethene	< 20.0
Trichlorofluoromethane	< 40.0
1,2,3-Trichloropropane	< 20.0
1,2,4-Trimethylbenzene	110.
1,3,5-Trimethylbenzene	47.6
Vinyl Chloride	< 100.
Xylenes, Total	331.
Surrogate 1	108.%
Surrogate 2	94.3%
Surrogate 3	91.9%
UIP's	6.



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

SW 8260

CLIENT: Griffin International

PROJECT: Stagecoach/#3985300

SITE: Duplicate

DATE RECEIVED: January 27, 1999

REPORT DATE: February 5, 1999

ANALYSIS DATE: February 4, 1999

ORDER ID: 1175

REFERENCE NUMBER: 134217

DATE SAMPLED: January 26, 1999

TIME SAMPLED: 12:03 PM

SAMPLER: DT

ANALYST: 725

Parameter	Result	Parameter	Result
	ug/L		ug/L
Benzene	245.	Hexachlorobutadiene	< 250.
Bromobenzene	< 50.0	Isopropylbenzene	< 50.0
Bromochloromethane	< 100.	p-Isopropyltoluene	< 50.0
Bromodichloromethane	< 50.0	Methylene Chloride	< 250.
Bromoform	< 50.0	MTBE	4,310.
Bromomethane	< 250.	Naphthalene	< 250.
n-Butylbenzene	< 50.0	n-Propylbenzene	< 50.0
sec-Butylbenzene	< 50.0	Styrene	< 50.0
tert-Butylbenzene	< 50.0	1,1,1,2-Tetrachloroethane	< 100.
Carbon Tetrachloride	< 50.0	1,1,2,2-Tetrachloroethane	< 100.
Chlorobenzene	< 50.0	Tetrachloroethene	< 50.0
Chloroethane	< 250.	Toluene	451.
Chloroform	< 50.0	1,2,3-Trichlorobenzene	< 100.
Chloromethane	< 500.	1,2,4-Trichlorobenzene	< 100.
2-Chlorotoluene	< 100.	1,1,1-Trichloroethane	< 50.0
4-Chlorotoluene	< 100.	1,1,2-Trichloroethane	< 50.0
Dibromochloromethane	< 50.0	Trichloroethene	< 50.0
1,2-Dibromo-3-Chloropropane	< 100.	Trichlorofluoromethane	< 100.
1,2-Dibromoethane	< 100.	1,2,3-Trichloropropane	< 50.0
Dibromomethane	< 100.	1,2,4-Trimethylbenzene	177.
1,2-Dichlorobenzene	< 50.0	1,3,5-Trimethylbenzene	64.5
1,3-Dichlorobenzene	< 50.0	Vinyl Chloride	< 250.
1,4-Dichlorobenzene	< 50.0	Xylenes, Total	449.
Dichlorodifluoromethane	< 500.	Surrogate 1	110.0%
1,1-Dichloroethane	< 50.0	Surrogate 2	94.6%
1,2-Dichloroethane	< 50.0	Surrogate 3	89.2%
1,1-Dichloroethene	< 50.0	UIP's	5.
cis-1,2-Dichloroethene	< 50.0		
trans-1,2-Dichloroethene	< 50.0		
1,2-Dichloropropane	< 50.0		
1,3-Dichloropropane	< 50.0		
2,2-Dichloropropane	< 50.0		
1,1-Dichloropropene	< 50.0		
cis-1,3-Dichloropropene	< 50.0		
trans-1,3-Dichloropropene	< 50.0		
Ethylbenzene	61.0		

**LABORATORY REPORT**

SW 8260

CLIENT: Griffin International

PROJECT: Stagecoach/#3985300

SITE: MW #3

DATE RECEIVED: January 27, 1999

REPORT DATE: February 5, 1999

ANALYSIS DATE: February 1, 1999

ORDER ID: 1175

REFERENCE NUMBER: 134213

DATE SAMPLED: January 26, 1999

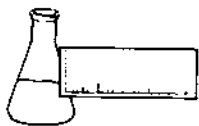
TIME SAMPLED: 11:24 AM

SAMPLER: DT

ANALYST: 725

<u>Parameter</u>	<u>Result</u> <u>ug/L</u>
Benzene	1.3
Bromobenzene	< 1.0
Bromochloromethane	< 2.0
Bromodichloromethane	< 1.0
Bromoform	< 1.0
Bromomethane	< 5.0
n-Butylbenzene	< 1.0
sec-Butylbenzene	< 1.0
tert-Butylbenzene	< 1.0
Carbon Tetrachloride	< 1.0
Chlorobenzene	< 1.0
Chloroethane	< 5.0
Chloroform	1.8
Chloromethane	< 10.0
2-Chlorotoluene	< 2.0
4-Chlorotoluene	< 2.0
Dibromochloromethane	< 1.0
1,2-Dibromo-3-Chloropropane	< 2.0
1,2-Dibromoethane	< 2.0
Dibromomethane	< 2.0
1,2-Dichlorobenzene	< 1.0
1,3-Dichlorobenzene	< 1.0
1,4-Dichlorobenzene	< 1.0
Dichlorodifluoromethane	< 10.0
1,1-Dichloroethane	< 1.0
1,2-Dichloroethane	< 1.0
1,1-Dichloroethene	< 1.0
cis-1,2-Dichloroethene	< 1.0
trans-1,2-Dichloroethene	< 1.0
1,2-Dichloropropane	< 1.0
1,3-Dichloropropane	< 1.0
2,2-Dichloropropane	< 1.0
1,1-Dichloropropene	< 1.0
cis-1,3-Dichloropropene	< 1.0
trans-1,3-Dichloropropene	< 1.0
Ethylbenzene	< 1.0

<u>Parameter</u>	<u>Result</u> <u>ug/L</u>
Hexachlorobutadiene	< 5.0
Isopropylbenzene	< 1.0
p-Isopropyltoluene	< 1.0
Methylene Chloride	< 5.0
MTBE	26.1
Naphthalene	< 5.0
n-Propylbenzene	< 1.0
Styrene	< 1.0
1,1,1,2-Tetrachloroethane	< 2.0
1,1,2,2-Tetrachloroethane	< 2.0
Tetrachloroethene	< 1.0
Toluene	< 1.0
1,2,3-Trichlorobenzene	< 2.0
1,2,4-Trichlorobenzene	< 2.0
1,1,1-Trichloroethane	< 1.0
1,1,2-Trichloroethane	< 1.0
Trichloroethene	< 1.0
Trichlorofluoromethane	< 2.0
1,2,3-Trichloropropane	< 1.0
1,2,4-Trimethylbenzene	2.5
1,3,5-Trimethylbenzene	1.4
Vinyl Chloride	< 5.0
Xylenes, Total	5.7
Surrogate 1	104.0%
Surrogate 2	85.1%
Surrogate 3	96.8%
UIP's	2.

**ENDYNE, INC.****Laboratory Services**

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LABORATORY REPORT

SW 8260

CLIENT: Griffin International
PROJECT: Stagecoach/#3985300
SITE: MW #4
DATE RECEIVED: January 27, 1999
REPORT DATE: February 5, 1999
ANALYSIS DATE: February 4, 1999

ORDER ID: 1175
REFERENCE NUMBER: 134214
DATE SAMPLED: January 26, 1999
TIME SAMPLED: 11:38 AM
SAMPLER: DT
ANALYST: 725

<u>Parameter</u>	<u>Result</u> <u>ug/L</u>	<u>Parameter</u>	<u>Result</u> <u>ug/L</u>
Benzene	1,010.	Hexachlorobutadiene	< 100.
Bromobenzene	< 20.0	Isopropylbenzene	31.2
Bromochloromethane	< 40.0	p-Isopropyltoluene	< 20.0
Bromodichloromethane	< 20.0	Methylene Chloride	< 100.
Bromoform	< 20.0	MTBE	2,750.
Bromomethane	< 100.	Naphthalene	< 100.
n-Butylbenzene	< 20.0	n-Propylbenzene	81.6
sec-Butylbenzene	< 20.0	Styrene	< 20.0
tert-Butylbenzene	< 20.0	1,1,1,2-Tetrachloroethane	< 40.0
Carbon Tetrachloride	< 20.0	1,1,2,2-Tetrachloroethane	< 40.0
Chlorobenzene	< 20.0	Tetrachloroethene	< 20.0
Chloroethane	< 100.	Toluene	1,950.
Chloroform	< 20.0	1,2,3-Trichlorobenzene	< 40.0
Chloromethane	< 200.	1,2,4-Trichlorobenzene	< 40.0
4-Chlorotoluene	< 40.0	1,1,1-Trichloroethane	< 20.0
2-Chlorotoluene	< 40.0	1,1,2-Trichloroethane	< 20.0
Dibromochloromethane	< 20.0	Trichloroethene	< 20.0
1,2-Dibromo-3-Chloropropane	< 40.0	Trichlorofluoromethane	< 40.0
1,2-Dibromoethane	< 40.0	1,2,3-Trichloropropane	< 20.0
Dibromomethane	< 40.0	1,2,4-Trimethylbenzene	781.
1,2-Dichlorobenzene	< 20.0	1,3,5-Trimethylbenzene	274.
1,3-Dichlorobenzene	< 20.0	Vinyl Chloride	< 100.
1,4-Dichlorobenzene	< 20.0	Xylenes, Total	2,670.
Dichlorodifluoromethane	< 200.	Surrogate 1	110.0%
1,1-Dichloroethane	< 20.0	Surrogate 2	95.1%
1,2-Dichloroethane	< 20.0	Surrogate 3	96.2%
1,1-Dichloroethene	< 20.0	UIP's	> 10.
cis-1,2-Dichloroethene	< 20.0		
trans-1,2-Dichloroethene	< 20.0		
1,2-Dichloropropane	< 20.0		
1,3-Dichloropropane	< 20.0		
2,2-Dichloropropane	< 20.0		
1,1-Dichloropropene	< 20.0		
cis-1,3-Dichloropropene	< 20.0		
trans-1,3-Dichloropropene	< 20.0		
Ethylbenzene	361.		



≡ENDYNE, INC.

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

3985300

CHAIN-OF-CUSTODY RECORD

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32211

Project Name: STAGE COACH Site Location: RANDOLPH	Reporting Address: GRIFFIN	Billing Address: GRIFFIN
Endyne Project Number: 1175	Company: Contact Name/Phone #: TIM KELLY	Sampler Name: Phone #: DON TOURANGEAU

[illegible]

Relinquished by: Signature <i>[Signature]</i>	Received by: Signature <i>Tina Desrosiers</i>	Date/Time <i>1-27-99 10:15</i>
Relinquished by: Signature <i>Tina Desrosiers</i>	Received by: Signature <i>Aileen Flowers</i>	Date/Time <i>1-27-99 10:15</i>

New York State Project: Yes No ☒

Requested Analyses

[illegible]